

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR ASSET ALLOCATION STRATEGY

~~February 17, 2009~~ March 16, 2009

This Policy is effective upon adoption and supersedes all previous Asset Allocation Strategy policies.

I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("Policy") for the Asset Allocation Strategy ("Program"). The design of this policy ensures that investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System ("CalPERS") take prudent and careful action while managing the Program. Additionally, use of this policy assures sufficient flexibility in managing investment risks and returns associated with this Program.

The Program involves establishing asset class allocation policy targets and ranges, and managing [asset class allocations](#) within their [policy ranges](#). CalPERS' recognizes that over 90% of the variation in investment returns of a large well-diversified pool of assets can typically be attributed to asset allocation decisions.

II. STRATEGIC OBJECTIVE

The Program shall be managed to accomplish the following:

- A. Recommend an asset allocation mix with targets and ranges based on a periodic asset liability management (ALM) review;
- B. Achieve the highest rate of total return reasonably possible within prudent levels of risk and liquidity;
- C. Maintain sufficient diversification to avoid large losses and preserve capital;
- D. Ensure that the asset class policy ranges approved by the Committee are adhered to, and that any [rebalancing](#) is performed efficiently and prudently; and

- E. Generate positive returns through active asset allocation.

III. RESPONSIBILITIES

- A. In addition to the Committee's responsibilities outlined in the Total Fund Statement of Investment Policy, the Committee is also responsible for approving asset classes for investment and approving a policy target allocation, permissible range, and benchmark for each asset class.
- B. CalPERS' Investment Staff ("Staff") is responsible for the following:
 - 1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
 - 2. Managing CalPERS asset class allocations within policy ranges approved by the Committee, in accordance with Policy guidelines.
 - 3. Reporting to the Committee monthly about the asset class allocations relative to their targets and ranges.
 - 4. Reporting to the Committee annually and more frequently if needed about Program allocations, returns, risks, and activity.
 - 5. Monitoring the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Guidelines and Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action.
 - 6. Providing recommendations to the Committee concerning the identification of asset classes and selection of asset class benchmarks, policy targets and ranges.
- C. The [General Pension Consultant](#) ("Consultant") is responsible for:

Monitoring, evaluating, and reporting periodically, to the Committee, on the performance of the Program relative to the benchmark and Policy.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

The [Fund benchmark](#) is the [Policy Index](#).

The goal is to establish asset class policy targets and ranges that meet the objectives described in Section II above.

The performance objective is to achieve positive [active asset allocation returns](#) over rolling five-year periods.

V. INVESTMENT APPROACHES AND PARAMETERS - STRATEGIC

A. Asset Class Policy Targets and Ranges

Policy asset class targets listed in Table 1 below were approved December 2007 by the Committee. The new policy targets are expected to be implemented over a period of three to four years. Until then, interim policy targets will be used to calculate the Policy Index return with the concurrence of the Consultant. The permissible ranges listed in Table 1 were approved December 2008 by the Committee.

Table 1.

Asset Class	Old Policy Target	New Policy Target	Allowable Range relative to target
Global Equity	60%	56%	+/- 15%
AIM (private equity)	<u>6%</u>	<u>10%</u>	+/- 8%
Total Equity	66%	66%	+/- 15%
Global Fixed Income (GFI)	26%	19%	+/- 15%
Inflation-linked Assets (ILAC)	<u>0%</u>	<u>5%</u>	0 to 5%
Total GFI and ILAC	26%	24%	+/- 15%
Real Estate	<u>8%</u>	<u>10%</u>	+/- 5%
Cash	<u>0%</u>	<u>0%</u>	+ 10%
Total	100%	100%	N/A

B. Asset Class Benchmarks

Each asset class shall have a benchmark specified in its respective policy and approved by the Committee.

C. Strategic Asset Allocation Process

1. A comprehensive Asset Allocation Strategy analysis shall be completed at least once every three years and will be presented to the Committee for review and approval of Policy target asset class allocations and ranges. The CIO may recommend a more frequent analysis of asset class allocations and ranges if expected returns, risks or liability values have substantially changed since the prior analysis. Additionally, the Program shall be reviewed by Staff at least annually to ensure that all assumptions used in establishing the Program continue to be reasonable.

The CIO may also recommend to the Committee changes in the policy targets and ranges. ~~A target for cash is exempt from consideration.~~

2. The Program shall reflect analyses that consider the current and expected financial condition of CalPERS including projected CalPERS' liabilities. Analyses shall also encompass the expected long-term capital markets outlook, expected inflation, and CalPERS' risk tolerance.
 - a. Analyses shall identify suitable asset classes in accordance with Section V.D, and consider asset class expected returns, volatilities, and correlations.
 - b. Analyses shall consider relevant and timely [decision factors](#). These decision factors shall be incorporated into the comprehensive Asset Allocation Strategy analysis to permit Committee members to establish investment priorities. Decision factors may include the following:
 - (1) Measures of projected funded status;
 - (2) Measures of the likelihood of deterioration in funded status;
 - (3) Measures of projected cost; and
 - (4) Measures of the likelihood of unacceptably high costs.
 - c. Analyses of alternative asset mixes shall measure the estimated effect on expected risk and return, and diversification.
 - d. The Committee shall approve policy asset allocation targets and ranges expressed as a percentage of total assets. The Committee shall set policy ranges sufficiently wide to permit efficient and flexible implementation—~~while~~, yet sufficiently narrow to maintain the basic risk and return relationship established by the allocation targets.

D. Asset Class Criteria

A financial or real asset type shall be considered as an asset class if it has a risk, return, and correlation profile sufficiently different from existing CalPERS asset classes, and if its inclusion or exclusion materially affects the expected risk and return of CalPERS' total return.

1. Criteria for consideration when evaluating an asset class shall include the following:
 - a. Sufficient size, liquidity, and cost efficiency to permit CalPERS to invest meaningful amounts in that asset class, and have a material effect on CalPERS' return.
 - b. Availability of sufficient internal or external investment and technical expertise to ensure prudent implementation of an investment in that asset class.
 - c. Presence of diversification, return enhancement, liquidity provision, or some other readily identifiable attribute sufficiently different from other asset classes and which enhances CalPERS' ability to achieve the strategic objectives outlined in Section II.
 - d. Acceptance by other large pension plan sponsors as a feasible and meaningful asset class, or in the absence of such acceptance, academic support for its inclusion.
 - e. Availability of sufficient data, history, or expertise to assess the feasibility and benefit of the asset class to CalPERS, by means of a measurable investment outcome. Further, the asset class must have a basis for developing expected investment returns, risks, and correlations for the purposes of the financial study.
2. An asset class may be approved for investment provided it meets the above criteria, and the Committee has had the opportunity for sufficient education to enable it to fulfill its fiduciary responsibility in making such an approval.
3. Once CalPERS approves an asset class for investment, as part of the Program, the investment may only be made in accordance with a policy reviewed and approved by the Committee for that asset class. Such a policy shall specify the investment guidelines and provide for the monitoring of that asset class.

VI. INVESTMENT APPROACHES AND PARAMETERS - IMPLEMENTATION

- A. Adherence to the asset class policy ranges shall be monitored and reported to the Committee as part of the Monthly CIO Report. This report shall display a comparison between the portfolio asset class allocations and the policy targets and ranges. The report shall also compare the

investment performance results of each asset class and the benchmark returns.

- B. Asset class allocations shall be managed to be within policy ranges, recognizing that extreme market volatility could cause asset class allocations to temporarily exceed the range. Allocations may temporarily deviate from policy ranges due to extreme market volatility. If an asset class allocation exceeds the policy range, Staff shall return the asset allocation to within its policy range in a timely manner, with the exact time period primarily dependent on transaction costs and liquidity.

Staff decisions concerning asset class active weights shall be determined in consideration of capital market views, relevant asset class characteristics, transaction costs, liquidity, and risks subject to this Policy and all other applicable policies.

For Global Equity and Global Fixed Income, the cumulative adjustment of the asset class weighting by Staff shall not exceed 50% of the policy range of the asset class within any quarter without advance Committee consent. ~~Given current policy ranges, the maximum allowable quarterly cumulative adjustment in allocation to either Global Equity or Global Fixed Income is five percentage points.~~

Changes in asset class allocations may be achieved by the movement of capital between asset classes through the trading of securities or through the use of derivatives. The intent is for asset class allocations to be actively managed rather than being allowed to passively drift with recent relative asset class returns.

- C. Accounts may be established and used to adjust asset class allocations within policy ranges, or to return asset allocations that have exceeded a policy range to within the policy range.

CalPERS cash may remain as cash or be converted to equity or bond exposure subject to active asset allocation decisions and policy ranges.

The Asset Allocation Unit shall determine adjustments in asset class allocations, and direct trade execution through the appropriate CalPERS unit.

- D. Managers may be retained for Program implementation subject to policy asset allocation ranges.
- E. The active asset allocation return will be measured and included in the Total Fund return and reported to the Committee at least quarterly.

F. Target Tracking Error

The Program will be managed within a target forecast annual [tracking error](#) of 0.75% using the CalPERS Risk Management System. This implies that over any one-year period, there will be a less than 5% probability that the active asset allocation return will be less than negative 1.2%.

The CalPERS total fund shall be managed with a target forecast annual tracking error of 1.5%, inclusive of active asset allocation and other active management decisions, using the CalPERS Risk Management System.

For both types of tracking errors, Staff will evaluate forecast values against subsequent realized values over rolling three-year periods.

G. External Manager Investment Guidelines

1. Manager Selection

- a. Managers retained in the Program shall have recognized expertise in active asset allocation.
- b. The selected managers shall be registered, or appropriately exempt from registration, with the Securities and Exchange Commission.
- c. Managers shall be selected in accordance with the applicable California laws and regulations, and CalPERS' policy.

2. Investment Manager Guidelines

Program Managers shall operate under guidelines that describe their investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities and procedures, benchmark and performance objectives.

Implementation of this Program shall comply at all times with manager-specific investment management guidelines in addition to all applicable CalPERS investment policies including the following:

- a. ~~Emerging Equity Markets Principles;~~
- b. ~~Statement of Investment Policy for Derivatives – External Money Managers;~~

- ~~c. Proxy Voting Policies;~~
- ~~d. Statement of Investment Policy for Monitoring Externally Managed Portfolios; and~~
- ~~e. Manager-specific Investment Management Guidelines.~~

VII. DERIVATIVES AND LEVERAGE

A. Strategies

Financial futures contracts, [forward contracts](#), [swaps](#), [options](#), combinations of these derivatives, [exchange traded funds](#), and structured notes may be used in the Program for the following purposes:

1. Adjust asset class allocations, within approved policy ranges.
2. Minimize the investment effect of average cash balances held in cash equivalents accounts by overlaying asset class derivatives.

B. Justification

Derivatives have several advantages in adjusting asset class allocations, including:

1. Minimizing transaction costs;
2. Increasing the speed of transactions, and thus the ability to respond quickly to volatile capital markets; and
3. Minimizing disruption of CalPERS portfolios.

C. Risks

Any use of derivatives to adjust asset class allocations shall comply with this Policy and all other applicable CalPERS policies including derivatives policies. Key derivative risks are described below:

1. [Pricing risk](#);
2. [Liquidity risk](#); and
3. [Counterparty risk](#).

Counterparty risk shall be managed by adherence to the following:

- a. Non-exchange traded derivative agreements shall be made only with counterparties for which CalPERS has an executed International Swaps and Derivatives Association (ISDA) agreement.
 - b. Counterparty creditworthiness, for non-exchange traded derivatives, shall be at a minimum of "A3" as defined by [Moody's](#), "A-" by [S&P](#) and "A-" by [Fitch](#). The use of counterparties holding a split rating with one of the ratings below A3/A- is prohibited. The use of unrated counterparties is prohibited unless the counterparty is a wholly owned affiliate of a parent company that guarantees payment and meets the above credit standards.
 - c. Swaps shall be settled quartermonthly or more frequently.
 - d. Individual counterparty exposure, for non-exchange traded derivatives, is limited to 33% of the net notional option-adjusted exposure of all Program counterparty exposures at the inception of a new position. An exception is allowed if the Program total non-exchange traded derivatives exposure is less than \$1 billion. Maximum notional exposure to a Program counterparty is \$1 billion at inception of the position.
 - e. Any entity acting as counterparty shall be regulated in either the United States or the United Kingdom.
4. Exchange-traded derivatives used in the Program shall be traded on an exchange regulated by the [SEC](#), CFTC ([Commodities Futures Trading Commission](#)) or the FSA ([Financial Services Authority](#)) of the United Kingdom.

D. [Leverage](#)

Program derivative trades shall be designed to avoid creating asset class leverage, which is defined as aggregate exposure across all asset classes of more than 100%.

Leverage shall be regularly monitored, at least monthly, to ensure that any asset class leverage shall remain within limits specified in relevant policies~~does not exceed \$500 million.~~

1. Exposure Limit

Derivative exposure used in the Program is limited to amounts that maintain all asset class allocations within their approved ranges.

2. Collateral

Collateral for all derivatives used in the Program shall consist of investment grade fixed income securities.

3. Prohibited Uses

This Policy authorizes only activity expressly designed to either overlay cash with exposure to another asset class or adjust portfolio asset class allocations within policy ranges. It does not authorize any other derivative trading purpose nor does it alter derivatives activity authorization given under other approved Policy documents.

VIII. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS' Custodian.

IX. GLOSSARY OF TERMS

Key words used in the policy are defined in CalPERS' Master Glossary of Terms.

Approved by the Policy Subcommittee: August 12, 1998
Adopted by the Investment Committee: August 14, 1998
Revised by the Policy Subcommittee: December 13, 2002
Approved by the Investment Committee: February 18, 2003
Revised by the Policy Subcommittee: December 10, 2004
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Revised by the Policy Subcommittee: August 11, 2006
Approved by the Investment Committee: September 11, 2006
Revised by the Policy Subcommittee: August 10, 2007
Approved by the Investment Committee: September 10, 2007
Revised by the Policy Subcommittee: April 21, 2008
Approved by the Investment Committee: May 12, 2008
Approved by the Investment Committee: December 15, 2008 (Allocation ranges)

Revised by the Policy Subcommittee: February 17, 2009
Approved by the Investment Committee: March 16, 2009

Active Asset Allocation Return

The portfolio return attributable to deviations between actual and policy asset allocations. Returns can be attributed to two sources: the active asset allocation return and the benchmark-relative return of each asset class. The CalPERS asset allocation return is calculated by the Custodian.

Asset Class Allocation

The net long market value of all non-derivative securities plus the net long futures-equivalent notional value of all derivatives.

Commodities and Futures Trading Commission (CFTC)

An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.

Counterparty Risk

The risk that CalPERS will have difficulty enforcing the provisions of a contract (Also known as “legal” risk).

Decision Factors

A measure or characteristic used for relating strategic goals to a specific asset allocation decision.

Equitize

Combining cash with derivative instruments to produce returns comparable to the equity market.

Exchange Traded Fund

An exchange-traded fund (ETF) is an investment company that is legally classified as an open-end company or a Unit Investment Trusts. An ETF is not classified as a mutual fund by the Securities and Exchange Commission because of limited redeemability. A typical ETF is similar to an index fund, and will invest in either all of the securities of a selected index or a representative sample of the securities included in the index.

Financial Services Authority (FSA)

The Financial Services Authority in the United Kingdom. This is the main independent financial regulatory agency in the UK, authorized by the government. The FSA regulates most financial services markets, exchanges and firms in the UK.

Fitch Ratings

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment-grade. Securities rated BB+ or below are considered to be speculative.

Forward Contract

An instrument that allows the purchase or sale of a specific quantity of a commodity, government security, foreign currency, or other financial instrument at the current price, with delivery and settlement at a specified future date.

Fund Benchmark

The average return of the asset class benchmark indices, weighted by asset class benchmark allocations. The fund benchmark return is the return attributable to the target asset class allocations. Staff employs active strategies in an effort to achieve a fund portfolio return that exceeds the fund benchmark return.

General Pension Consultant

An individual or organization that provides specialized professional assistance to the Investment Committee in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Liquidity Risk

The inability to trade a position at a price approximating fair value.

Long

An exposure that generates a profit if the value of the underlying position rises in value.

Moody's Investors Service

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or

before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Policy Index

The Policy Index is calculated as the sum of each asset class' strategic target weight in the portfolio times its actual total return.

Policy Range

The permissible allocations of an asset class set by the Investment Committee.

Pricing Risk

The risk that the fair value of an asset cannot be established.

Rebalancing

The movement of portfolio asset class exposures closer to policy target weightings, generally resulting in a reduction in active (benchmark-relative) risk.

SEC

The Securities and Exchange Commission. This is the federal agency created by the Securities Exchange Act of 1933 to administer that act and the Securities Act of 1933, formerly carried out by the Federal Trade Commission.

Standard and Poor's (S&P)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative,

Swap

Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.

Tracking Error

The annualized standard deviation of the difference between the total return of the portfolio and the total return of the benchmark. The term tracking error is frequently used to describe return deviation, the total return of a portfolio, minus the total return of a benchmark index.